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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,520	03/28/2001	Masato Yonezawa	07977/270001/US4820	5433

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EXAMINER

ALEJANDRO MULERO, LUZ L

ART UNIT

PAPER NUMBER

1763

DATE MAILED: 01/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

53

Office Action Summary

Application No. 09/820,520		Applicant(s) YONEZAWA ET AL.	
Examiner Luz L. Alejandro		Art Unit 1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-19 is/are pending in the application.
- 4a) Of the above claim(s) 15-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 15-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4.

Drawings

Figures 1A-1C, 2A-2B, and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: on page 10, lines 11, 13, and 14, a number is given for a diameter but no units are given.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9-line 2, "said surface" renders the claim indefinite because it is unclear what surface is being referenced. Note that in claim 1-lines 9-10, a surface of a substrate is claimed while in line 13 a surface of the electrode is claimed. For purposes of examination, it is assumed that the surface of the substrate is being claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art in view of Williams, U.S. Patent 5,614,026.

Admitted prior art shows the invention substantially as claimed including a film formation apparatus comprising: a vacuum chamber; an introducing means 206 for introducing a gas into the chamber; an exhaust means for exhausting the gas from the vacuum chamber to the outside; a first mesh-like showerhead plate electrode 203,204 for supplying an electric energy inside the chamber; a second grounded electrode 202 opposing the first electrode for supplying the electric energy inside the vacuum chamber; a supporting means for supporting a substrate 201 opposing the first electrode and a transporting means for transporting a flexible substrate including at least one selected from a winding and an unwinding roll (see applicant's description of the roll to roll method at paragraph bridging pages 1 and 2), wherein an introducing port is located adjacent to an electrode side surface of the substrate, wherein a plurality of openings are located on a surface of the first electrode opposing the substrate, and wherein said first electrode is located below said second electrode (see Fig. 2A and page 3, line 16 to page 4, line 3 of specification). Note that for purposes of claim interpretation, the first and second electrodes described above represent the second and first electrodes of claim 10.

Admitted prior art fails to expressly disclose wherein the gas is exhausted from the plurality of openings and where the openings are circular. Williams discloses a showerhead whereby concentric openings are contained within the showerhead for exhausting the gas (see abstract and Fig. 3(a)). In view of this disclosure, it would have

Art Unit: 1763

been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of the Admitted prior art so as to exhaust gas from the openings in the showerhead as suggested by Williams because this results in greater uniformity of the gas at the substrate surface (see col. 2-lines 13-16). With respect to the shape of the openings for exhausting the gas, the particular shape of the openings is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed openings are significant.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art in view of Williams, U.S. Patent 5,614,026 as applied to claims 1-4 and 6-13 above, and further in view of Izu et al., U.S. Patent 4,410,558.

The Admitted prior art and Williams are applied as above but fail to expressly disclose wherein said gas inlet port is located in a position between the substrate and the second electrode. Izu et al. discloses a gas inlet port 52 located in a position between the substrate 50 and an electrode 58 (see fig. 3 and col. 4-line 23 to col. 7-line 19). In view of this disclosure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Admitted prior art modified by Williams so as to include a gas inlet between the substrate and the second lower electrode as suggested by Izu et al. because this allows for uniform distribution of the gas across the entire substrate.

Response to Arguments

Applicant's arguments filed 11-7-02 have been fully considered but they are not persuasive. Applicant argues that the combination of the Admitted prior art and Williams is improper because Williams teaches constructing the showerhead of a non-conductive material, and therefore the showerhead of Williams cannot be an electrode. However, the examiner respectfully directs applicant to col. 6-lines 43-47 which disclose constructing the showerhead of a conductive material such as aluminum. Furthermore, concerning applicant's arguments that Williams fails to show exhausting gases through openings in the electrode itself, the admitted prior art is being relied upon to show a showerhead which is an electrode, and the Williams reference is relied upon to show openings in a showerhead through which gases are exhausted. Therefore, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luz L. Alejandro whose telephone number is 703-305-4545. The examiner can normally be reached on Monday to Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills can be reached on 703-308-1633. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Luz L. Alejandro
Patent Examiner
Art Unit 1763

January 7, 2003